



Communicable Disease and Epidemiology News

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Edited by Sherry Lipsky, PA-C, MPH

 **Public Health**
Seattle & King County
HEALTHY PEOPLE. HEALTHY COMMUNITIES.
Epidemiology, Prevention Division
First Interstate Center
999 Third Avenue, Suite 900
Seattle, WA 98104-4039

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IN THE AUGUST 1999 ISSUE:

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- **The Juice Connection: Update on Salmonellosis Outbreak**
- **Back to School Alert: Campus-Dwelling College Students at Increased Risk for Meningococcal Disease**
- **Preventing Perinatal Transmission of Hepatitis B**
- **Register Now! Immunization Update Scheduled for September**

Juice Connection

No new cases of *Salmonella muenchen* infection have been reported in King County since July 4th. In total, 111 cases of *S. muenchen* were reported in Washington State, 70 of which occurred in King County. Sixty-five of the 70 King County cases were identical and five related by pulsed-field gel electrophoresis (PFGE) testing at the Washington State Department of Health Laboratories; statewide, 101 of 109 tested with PFGE were identical and seven were closely related. Eighteen states and three Canadian provinces have reported to the Centers for Disease Control and Prevention (CDC) a total of 274 *S. muenchen* cases confirmed to have the outbreak pattern by PFGE testing or with a history of consuming unpasteurized fresh squeezed orange juice.

Sun Orchards, the manufacturer of the contaminated juice, and multiple other manufacturers were granted exemptions in 1998 to U.S. Food and Drug Administration (FDA) labeling requirements that would inform consumers that citrus juices are unpasteurized because they provided the FDA documentation of alternative processing technologies that reduced the microbial contamination of their juice products. Unfortunately, the FDA subsequently determined that Sun Orchards was blending its juice product after processing with unpasteurized juice imported from Mexico. When the FDA later tested the Mexican product, multiple species of *Salmonella* were recovered, although not the outbreak strain, and the product was then banned from importation into the U.S.

This outbreak illustrates the complexities involved in regulating and monitoring juice safety. Although the Sun Orchards juicing plant apparently had a satisfactory

nonpasteurization production technology to reduce microbial contamination of juice, the product was nonetheless contaminated with these enteric organisms after processing and before distribution. FDA is now wondering why the system of regulatory safety checks they have required of juice manufacturers failed to prevent this episode.

Both the Washington State Board of Health and the King County Board of Health are considering options to decrease the potential illness from consuming unpasteurized juice products. In the meantime, juice consumers wishing to avoid unpasteurized products should look for documentation of pasteurization on the container or purchase frozen juices or nonrefrigerated juices sold on the grocery shelf (which are pasteurized).

Meningococcal Disease

The epidemiology of meningococcal disease is changing, with a shift toward increasing outbreaks in the college age population. Most of these outbreaks have been caused by *N. meningitidis* serogroup C, which is potentially vaccine-preventable. One recently published article (JAMA. 1999;281(20):1906-10) indicates that college students living on campus at four year schools are at approximately a three-fold increased risk for meningococcal disease compared to those students living off campus or those of similar age who do not attend college.

In light of this study, the American College Health Association (ACHA) has renewed its recommendation from 1997 which is as follows: "ACHA recommends that students consider vaccination to reduce their risk for potentially fatal meningococcal disease, and that college health care providers take a proactive role

in providing information about and access to the meningococcal vaccine."

Effective June 10, Public Health - Seattle & King County will administer meningococcal vaccine upon request to college students who are or will be living on campus. Meningococcal vaccine is available *only* through our travel clinics (Downtown, Northshore, and Auburn) and Eastgate Public Health Center. A single dose is recommended, at a cost of \$65.00.

Perinatal Hepatitis

Of the approximately 4 million births in the U.S. each year, it is estimated that 22,000 occur among women currently infected with hepatitis B virus (HBV). Over 90% of infants born to HBV-infected women who do not receive the appropriate post-exposure prophylaxis will themselves become infected. Unfortunately, 99% of these perinatal infections are asymptomatic and often go undetected. More than 90% of perinatally infected infants will become chronic carriers, compared to approximately 5% of adults who become infected with HBV. Of the 90% of infants who become chronic HBV carriers, 25% will develop liver disease later in life and 75% will ultimately die from liver-related illnesses, including liver disease and liver cancer.

The Perinatal Hepatitis B Prevention Program is a national program, funded in 1990, to reduce the incidence of HBV infections in infants born to HBV-infected women. In 1991, the Advisory Committee on Immunization Practices (ACIP) recommended five strategies to eliminate HBV transmission in the U.S. including prevention of perinatal transmission of HBV. The other four strategies are routine vaccination of all newborns; vaccination of all children and adolescents 0-18 years of age, especially

adolescents 11-12 years of age; "catch-up" vaccination of high-risk children; and vaccination of high risk adults.

The components of the Perinatal Hepatitis B Prevention Program include: 1) screening of all pregnant women for hepatitis B surface antigen (HbsAg -- a positive result indicates a current HBV infection), 2) reporting of all HbsAg-positive pregnant women as early in the pregnancy as possible in order to identify other at-risk family members and facilitate follow-up of infected infants, 3) immunoprophylaxis of all newborns at birth (hepatitis B immune globulin and the first dose of hepatitis B vaccine within 12 hours of birth), 4) tracking and reminder system to ensure that infants receive the second and third dose of hepatitis B vaccine on time (second dose at 1-2 months of age and third dose at, but not before, 6 months of age), 5) post-vaccination serologic testing (including HBsAg and anti-HBs) of all infants at 9-15 months of age to ensure that the infant is not infected with HBV and that he/she has adequate immunity against HBV, and 6) identification, screening, and vaccination, if susceptible, of the woman's sexual and household contacts.

Acute HBV infections currently are legally reportable in Washington State, and chronic hepatitis B and hepatitis B in pregnant women are scheduled to become reportable in the fall.

Reporting of all HBV infections is being implemented in order to monitor the prevalence of HBV in the community, to enhance primary prevention activities for high-risk contacts and secondary prevention activities for cases, and to increase the identification of HBV-infected pregnant women. Reporting of HBV-infected pregnant women is a standard of practice outlined by the ACIP. Additionally, both the ACIP and the American College of OB-GYN's Committee on Obstetrics strongly support screening of all pregnant women for HBsAg.

Public Health currently receives reports of HbsAg-positive pregnant women from laboratories, healthcare providers caring for women during their pregnancy, hospital staff caring for women and infants at time of delivery, and healthcare providers caring for infants and children born to HBV-infected women. In order to identify all infants at risk of perinatally transmitted HBV infection, all these sources are encouraged to routinely report cases to Public Health. Health care providers are encouraged to report all pregnant women who are HBsAg-positive and reside in Seattle-King County to Communicable Disease Epidemiology. Reporting may be done by telephone, mail or fax (see numbers below). Maternal/infant case report forms and Program manuals are also available. Please call Shelly McKeiman, Program

Coordinator, at (206) 296-4717 for additional information or materials.

Immunization Course

Virginia Mason Medical Center and Public Health – Seattle & King County are co-sponsoring the CDC satellite course, *Immunization Update 1999*, on Thursday, September 16th, from 9:00-11:30 a.m. at Virginia Mason's Volney Auditorium. Anticipated topics include: new recommendations for the use of polio, hepatitis A, Lyme disease and varicella vaccines, update on polio eradication, and recent vaccine safety issues. Continuing education credits will be available for a variety of professions. **Registration deadline is Friday, September 10th.**

For more information, call Amy Patton at 206-205-5803 or email amy.patton@metrokc.gov.

Report:	(area code 206)
AIDS	296-4645
Communicable Disease	296-4774
STDs.....	731-3954
Tuberculosis	731-4579
24-hr Report Line.....	296-4782
24-hr Fax Line.....	296-4803
After hours	682-7321
Hotlines:	
CD Hotline	296-4949
HIV/STD Hotline.....	205-STDs

<http://www.metrokc.gov/health/>

REPORTED CASES OF SELECTED DISEASES SEATTLE-KING COUNTY 1999				
	CASES REPORTED IN JULY		CASES REPORTED THROUGH JULY	
	1999	1998	1999	1998
VACCINE-PREVENTABLE DISEASES				
Mumps	0	1	1	1
Measles	0	0	1	0
Pertussis	8	11	375	98
Rubella	0	0	2	1
SEXUALLY TRANSMITTED DISEASES				
Syphilis	6	7	49	26
Gonorrhea	62	104	525	594
Chlamydial infections	262	344	2168	2037
Herpes, genital	54	54	399	411
Pelvic Inflammatory Disease	21	20	155	146
Syphilis, late	0	2	19	18
ENTERIC DISEASES				
Giardiasis	21	20	106	119
Salmonellosis	48	32	193	114
Shigellosis	6	7	35	44
Campylobacteriosis	37	36	156	143
E.coli O157:H7	6	8	20	13
HEPATITIS				
Hepatitis A	35	28	102	324
Hepatitis B	2	4	20	38
Hepatitis C/non-A, non-B	1	1	3	3
AIDS	14	29	127	162
TUBERCULOSIS	9	9	55	83
MENINGITIS/INVASIVE DISEASE				
Haemophilus influenzae	0	0	0	1
Meningococcal disease	2	0	13	11